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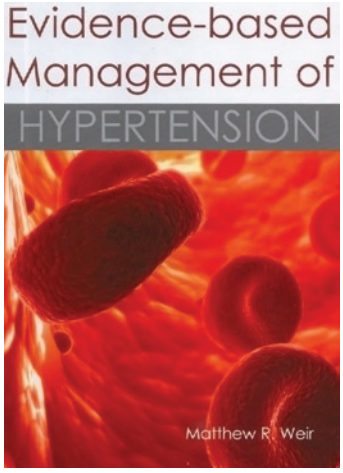
Evidence-based Management of Hypertension



Edited by Matthew R. Weir

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Reviewed by Rajiv Agarwal

Evidence-based Management of Hypertension is divided into 15 chapters, each authored or coauthored by a leading expert. The book is edited by Matthew R. Weir, professor of medicine, who himself is a leading hypertension specialist. The objective of the book is to answer several questions:

(1) whom to treat, when to start, and how low to go;
(2) what therapies to use;
(3) whether pre-hypertension should be treated;
(4) whether the choice of therapy should change in the presence of comorbidities such as ischemic heart disease, obesity, diabetes, chronic kidney disease, and so on.

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At the outset, the editor lays the foundation of the book by outlining the levels of evidence, from 1a to 4, and grades of evidence, from A to D. These criteria have been widely used to rate the quality of evidence in other evidence-based guidelines. Using these criteria, authors were asked to rate and grade the level of evidence in a table at the end of their chapter. In addition, they were asked to summarize the key recommendations.

I reviewed the book by starting at the end of each chapter, reading the summary and evidence rating. This provoked me to read the evidence base that led to the conclusions. The rating of the evidence and conclusions remains the subjective opinion of the authors. There is nothing wrong with this subjectivity; it points out that evidence-based medicine is also an art. As an example, two sets of authors who reviewed the evidence on goal blood pressure in patients with chronic kidney disease reached markedly different conclusions. In chapter 1, Basile and Moser conclude that among patients with chronic kidney disease, reduction of blood pressure to less than 140/90 mm Hg is optimal to reduce cardiovascular and renal outcomes. The level of evidence was rated 1b (at least one randomized trial to support) and graded A (high-quality study). In contrast, in chapter 14, Kalaitzidis and Bakris conclude that among patients with diabetic nephropathy, blood pressure should be reduced to less than 130/80 mm Hg. They rated the evidence 1a (supported by systematic review and meta-analysis) and graded it A. Given that data to support firm recommendations in this area are sparse, the reader can appreciate why the authors reached different conclusions after examining the supporting data.

As is true of many books printed on paper, some of the information is dated. As examples, two meta-analyses on the use of antihypertensive drugs among dialysis patients are not mentioned. Meta-analyses, according to the rating table of this book, would qualify for the highest level of evidence (1a). Although the first chapter mentions the findings of the Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial, the chapter dealing with diabetes and hypertension does not. Nonetheless, these are minor shortcomings. The overall effort by the authors is tremendous and laudable.

To those with not much time on their hands, I would suggest reading the summary of the evidence base of each chapter. To those interested in hypertension, I would suggest reading the data that form the evidence base. Thus, this well-written book can serve the needs of many types of readers, from the medical student to the specialist. I would recommend it to anyone interested in exploring the evidence base of hypertension.

DISCLOSURE

The author declared no competing interests.